CASE STUDY

Maury Regional Health: Building a Population Health Infrastructure from Scratch

To thrive in a world of value-based reimbursement, healthcare systems must learn how to manage population health – a very challenging undertaking for most organizations. Maury Regional Health, a medium-sized rural health system based in Columbia, Tennessee, is making this tough climb with the help of sophisticated data integration and analytics from Lightbeam Health Solutions. Early indications show this new strategic direction will lead to success.

Maury Regional Health includes Maury Regional Medical Center, a 255-bed community hospital, as well as a critical access hospital, a small rural medical center, five Federally Qualified Health Centers (FQHCs), a physician group with 200 providers including some specialty physicians, and several primary facilities. Serving six primary counties, it is the largest healthcare provider between Nashville and Huntsville, Alabama. Its mission is to provide excellent healthcare and to aspire to the Quadruple Aim. To achieve these goals, Maury Regional Health must address the poor health indicators endemic in Tennessee.

The Data Challenge

In January 2017, Maury Regional Health's accountable care organization (ACO) – which encompasses the hospital and its employed providers – joined the Medicare Shared Savings Program (MSSP). At that time, the ACO was unprepared to generate savings because it lacked the requisite infrastructure to do population health management. Up until then, Maury had taken a reactive, traditional encounter-based approach to healthcare, and data was not consistently used to drive its care delivery strategy.

To decide what had to be done to shift course, Maury had a consulting group perform an internal gap analysis. The results persuaded the ACO's leaders to reorganize around population health management, redesign inpatient and ambulatory care management functions, and build the necessary data infrastructure. Maury restructured its care management function, commissioned task forces to plan how to reduce readmissions for heart failure, COPD, and pneumonia, hired a vice president of population health, and contracted with Lightbeam Health to provide the needed population health management solutions and expertise. In addition, it formalized a select network of post-acute care providers to reduce post-discharge costs.

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Mark Kirschbaum, RN, PhD
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Maury Regional Health

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Outcomes

- Generated $560,000 MSSP savings
- Leveraged data to hire Care Coordinators
- Reduced readmission rates

Solution

Lightbeam's Population Health Management Platform

Goals

- Identify and care manage patients overdue for preventive and chronic care
- Reduce readmissions in high-risk patients
- Close gaps in care
- Reduce post-acute spend

Challenges

- Social determinants of health
- Lacking in physician engagement
- Visibility of physician panel sizing
- Lacking in population health management infrastructure

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Ambulatory Care Management

Maury's ACO first sought to find out how many ambulatory care managers it would need to care for its MSSP-attributed high-risk patients with complex chronic diseases. Maury used Lightbeam analytics to see how much the ACO had spent on these patients and how much, based on industry benchmarks, the ACO could save if care managers were wisely utilized and met expectations. After determining how many patients belonged to the ACO, where they lived, and what practices they visited, Maury determined how many care managers would be required. Knowing how much of those savings would be reflected in MSSP bonuses, the ACO's leaders showed Maury's management how the care managers could create a return on investment by improving care coordination and reducing readmissions.

Six care managers were hired to meet the ACO's needs. Two large practices have one care coordinator each, and each of the other care managers are serving multiple groups. These necessary providers manage the top 15 to 20 percent of the population, including high-risk and rising-risk patients. Medical assistants function as health coaches, interacting with low-risk patients and proactively scheduling appointments with patients who have open care gaps.

Transitional care managers in the hospital also identify and follow high-risk patients, post-discharge. These nurses focus on preventing readmissions and on improving transitions to the next level of care. They also follow patients who are part of a bundled payment program for the duration of each episode of care.

Using Data to Generate Action

Lightbeam's enterprise data warehouse (EDW), which is integrated with Cerner, Maury's electronic health record (EHR), provides the data infrastructure that supports the system's population health management process. Claims data from Medicare is integrated with EHR data (and eventually will include information on social determinants of health) in the data warehouse.

Lightbeam analytics identify high-risk patients and care gaps so that providers and care managers can deliver the right care to the right patients. The ACO staff also uses this data to contact patients who are overdue for preventive visits and chronic care management. Registries of chronic-disease patients are created and assigned to care managers. Furthermore, care coordinators used the registries to obtain information they needed to care for patients without digging through charts. Maury uses the data in Lightbeam to generate action within their MSSP population and are also taking the same action with the health system's Medicare Advantage (MA) plan.

Results

Nearly two years after Maury began this journey, the costs of its ACO's MSSP (and MA) patients have started to decline. Readmission rates also are beginning to decrease. In the first year of operation, Maury's ACO saved Medicare over $560,000, but did not reach the threshold for sharing in the savings.

In October 2018, Maury joined Medicare's new Advanced Bundled Payments for Care Initiative (BPCI-A) after having successfully participated in both the CJR and MSSP programs. In 2019, Maury plans to obtain National Committee for Quality Assurance (NCQA) certification for its patient-centered medical homes. Moreover, Maury is expanding care coordination for patients with diabetes and high utilizers of its emergency department. Telehealth visits for urgent care are on the horizon, along with remote patient monitoring, facilitated by a USDA rural telemedicine grant.

This workflow for care managers would not be possible without the IT infrastructure that Maury built, and the patient data provided by Lightbeam Health Solutions. This infrastructure is what gives the health system and its ACO the actionable, real-time insights that they need to succeed in population health management, bundled shared savings, and payment programs.

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